

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US2004/027122

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H01B3/00 H01B3/02 C08K3/22 C08K3/04

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H01B C08K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|--|----------------------------|
| P,X | WO 2004/038375 A (NORTH CAROLINA STATE UNIVERSITY; BURKHOLDER, JOANN; GLASGOW, HOWARD, J) 6 May 2004 (2004-05-06) page 1, line 12 - page 4, line 25 page 8, line 10 - page 10, line 9; claims 1-13 | 1-11, 18-29, 36,37 |
| X | DE 40 37 972 A1 (ASEA BROWN BOVERI AG, BADEN, AARGAU, CH) 27 June 1991 (1991-06-27) column 1, line 25 - column 3, line 35; claims 1-8 | 1-5,10, 11, 18-23,36 |
| X | EP 1 033 724 A (ALCATEL) 6 September 2000 (2000-09-06) column 1, line 25 - column 4, line 10; claims 1-12 | 1-15, 18-33, 36,37 |
| -/- | | |

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

24 March 2005

Date of mailing of the international search report

07. 06. 2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Marsitzky, D

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| C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT | | |
|--|---|-------------------------------------|
| Category ° | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
| X | <p>ONNEBY C ET AL: "Electrical properties of field grading materials influenced by the silicon carbide grain size" SOLID DIELECTRICS, 2001. ICSD '01. PROCEEDINGS OF THE 2001 IEEE 7TH INTERNATIONAL CONFERENCE ON 25-29 JUNE 2001, PISCATAWAY, NJ, USA, IEEE, 25 June 2001 (2001-06-25), pages 43-45, XP010561419 ISBN: 0-7803-6352-3 whole document</p> | <p>1-7,10, 11, 18-25,36</p> |
| X | <p>MARTENSSON E ET AL: "Electrical properties of field grading materials with silicon carbide and carbon black" CONDUCTION AND BREAKDOWN IN SOLID DIELECTRICS, 1998. ICSD '98. PROCEEDINGS OF THE 1998 IEEE 6TH INTERNATIONAL CONFERENCE ON VASTERAS, SWEDEN 22-25 JUNE 1998, NEW YORK, NY, USA, IEEE, US, 22 June 1998 (1998-06-22), pages 548-552, XP010296263 ISBN: 0-7803-4237-2 whole document</p> | <p>1-7,10, 11, 18-25,36</p> |
| X | <p>WO 02/096982 A (NELSON, GORDON, L; YANG, FENG) 5 December 2002 (2002-12-05) whole document</p> | <p>1-15, 19-33, 36,37</p> |

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International application No.
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Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-15, 18-33, 36-37

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-15, 18-33, 36-37

Field grading material comprising a) nanosized inorganic oxide filler and SiC and b) a polymer matrix for use in power cables.

2. claims: 16-17, 34-35

Field grading material comprising a) carbon nanotubes and b) a polymer matrix for use in power cables.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US2004/027122

| Patent document cited in search report | | Publication date | Patent family member(s) | Publication date |
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| | | | WO 2004038375 A2 | 06-05-2004 |
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| DE 4037972 | A1 | 27-06-1991 | NONE | |
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| | | | US 2005027040 A1 | 03-02-2005 |
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